(No Model.)

F. RHIND.

BICYCLE LAMP.

No. 560,110. Patented May 12, 1896.

Fig. 1.

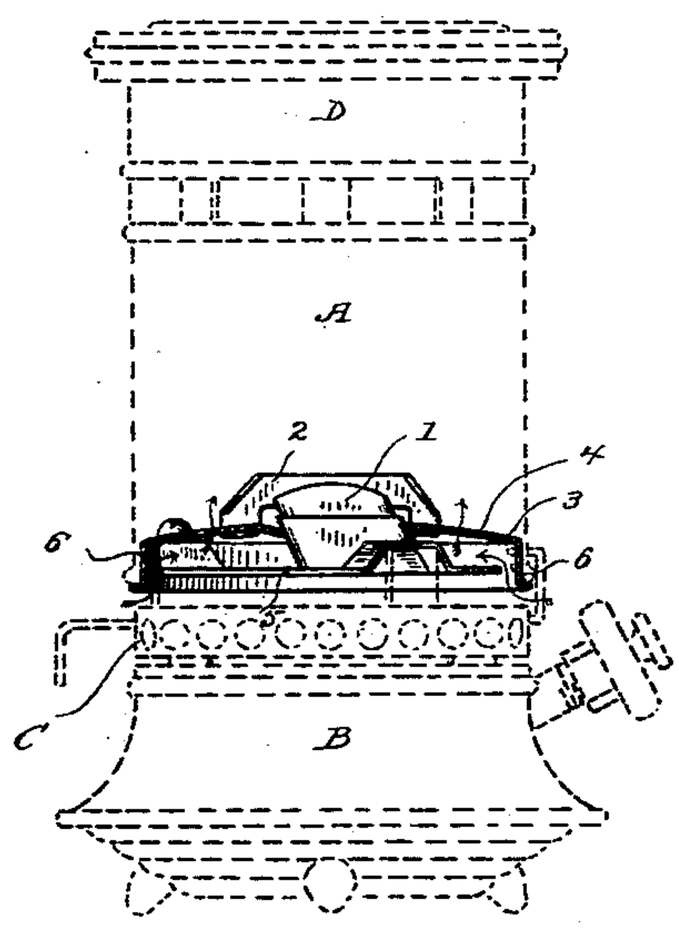


Fig. 2.

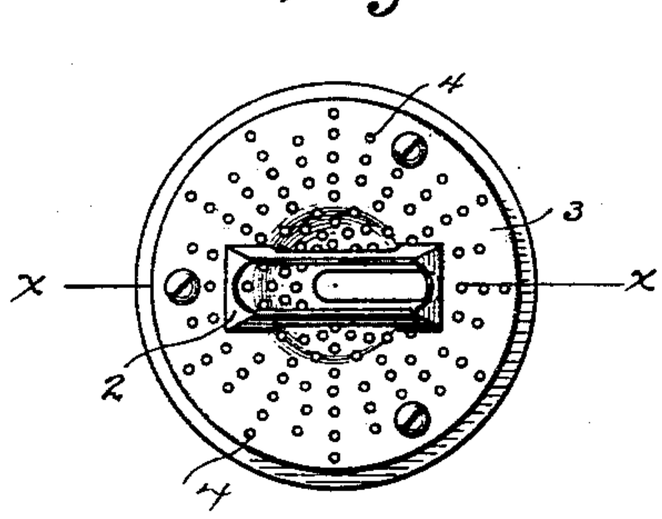


Fig. 6.

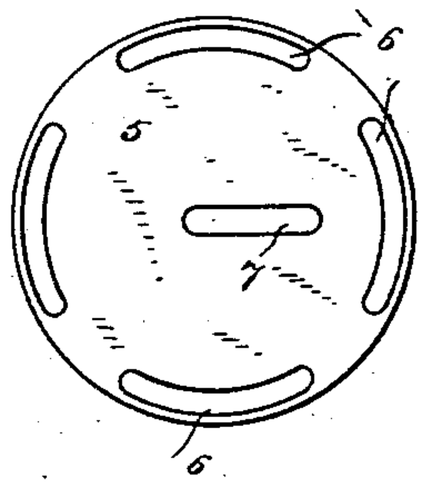


Fig. 4.

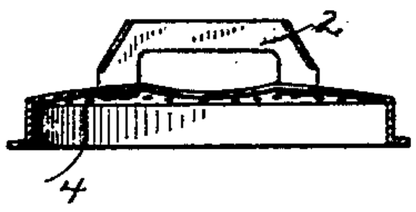


Fig. 5.

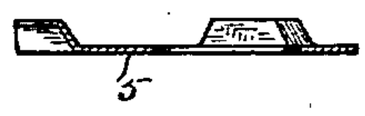
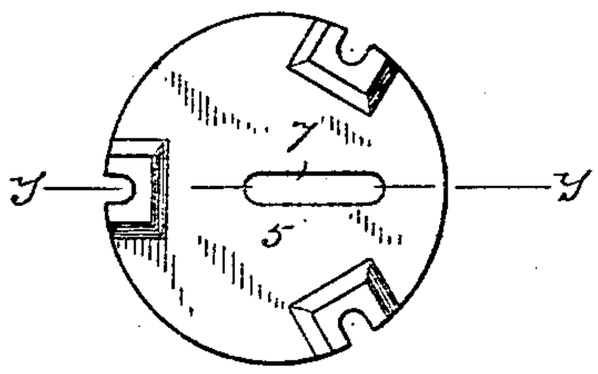


Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

FRANK RHIND, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE BRIDGEPORT BRASS COMPANY, OF SAME PLACE.

BICYCLE-LAMP.

SPECIFICATION forming part of Letters Patent No. 560,110, dated May 12, 1896.

Application filed February 20, 1896. Serial No. 580,080. (No model.)

To all whom it may concern:

Be it known that I, FRANK RHIND, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Bicycle-Lamps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the construction of lamps for bicycles, carriages, cars, &c., and has for its object to so improve the construction that while air shall be admitted freely to the body of the lamp to feed the flame the supply of air shall be made regular, instead of irregular, as has heretofore been the case, and puffs or strong drafts of air through the body of the lamp shall be wholly prevented, no matter how irregular may be the movements of the lamp, or how suddenly it may move up and down, or how strong or irregular may be the currents of air to which the lamp is exposed. I have found in practice that my improved construction aids greatly in preventing the flame from smoking, and also renders it practically impossible to extinguish the flame under ordinary circumstances. In order to accomplish this result, I provide perforations in the usual burner-plate, and below the burner-plate I place a non-perforated air-deflecting plate, so that all currents of air which enter the lamp at the usual open connection between the body and the reservoir must first strike the deflecting-plate and pass over the edge of said plate before they can pass through the burner-plate and into the body of the lamp.

In the accompanying drawings, forming part of this specification, Figure 1 is a sectional view illustrating the application of my present improvement to the well-known "Search-Light" lamp, the reservoir, body, open connection, and wind-guard being shown in dotted lines in elevation; Fig. 2, a plan view of the burner-plate and deflector detached; Fig. 3, a plan view of one form of air-deflecting plate detached; Fig. 4, a section of the burner-plate and deflector on the line *x x* in Fig. 2; Fig. 5, a section of the air-deflecting plate; and Fig. 6 is a plan view of another form of air-deflecting plate detached.

A denotes the body, B the reservoir, C the open connection between the body and the reservoir, and D the wind-guard, all of which may be of the ordinary or any preferred construction.

1 denotes a wick-tube, which may be of the ordinary or any preferred construction; 2, a deflector, which may or may not be used, and 3 a burner-plate which surrounds the wick-tube and is provided with perforations 4, the function of which is to permit air which enters through the open connection to pass into the body freely to feed the flame. Below the burner-plate I place the air-deflecting plate 5, which is a vital feature of my present improvement.

7 denotes an opening in the air-deflecting plate through which the wick-tube passes closely. The action of this air-deflecting plate will be clearly understood from Fig. 1. All the air which enters the body of the lamp from below must enter through the open connection and pass through the burner-plate before it can enter the body. Heretofore, however, no means has been provided to regulate the passage of air through the burner-plate into the body and to prevent air from passing into the body in puffs and sudden currents. This is wholly obviated by the use of my novel air-deflecting plate. In my present construction air that enters the body from below comes in contact with the air-deflecting plate, which is non-perforated, and can only get to the burner-plate by passing over the edge of the air-deflecting plate, as in Fig. 3, said plate being made smaller than the burner-plate so as to leave an opening 6 at the edge of the air-deflecting plate to permit air to pass freely, or through openings 6 formed in the plate itself near the edge thereof as in Fig. 6. After passing the air-deflecting plate the air then passes inward and upward and through perforations 4 in the burner-plate to feed the flame.

Having thus described my invention, I claim—

In a bicycle-lamp the combination with a body, a reservoir an open connection between said body and reservoir and a wick-tube, of

a burner-plate having perforations through which air may pass freely to the body, and below said burner-plate a non-perforated air-deflecting plate which fits the wick-tube closely, an opening being provided at the edge of the air-deflecting plate so that air entering the body from below must first pass the air-deflecting plate and then inward and upward through the openings in the burner-plate whereby puffs and currents of air in the body are prevented.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK RHIND.

Witnesses:
A. M. WOOSTER,
H. SINCERBEAUX.